

Remarks/Arguments

Claims 1 and 8 are cancelled without prejudice.

Claims 2 - 10 are amended.

Claims 11 - 18 are added.

New claim 11 presents, in independent form, the material of claim 8 and base claim 2, deemed allowable by the Examiner.

Claim 10 is also amended to correct a spelling error to which the Examiner objected. Withdrawal of the objection is respectfully requested.

The specification is amended at page 4, line 8 to correct a typographical error and to clarify the description of the stepped tape motion.

Rejection under 35 U.S.C. §102(b)

Claims 2 - 7 and 9 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,448,427 to Masuda et al.

Applicant respectfully traverses the rejection of claims 2 - 7 and 9.

Applicant's invention relates to the provision of slow-motion or still-picture modes of reproduction. These playback modes require that a recorded tape is precisely moved from recorded track to recorded track and accurately parked to permit the track to be scanned by the rotating heads. Applicant precisely controls the capstan by the application and polarity of power such that the tape is moved sequentially in a series of steps in a single direction. Furthermore, a cost reduced design employs a capstan motor with a single rotation sensor or FG pulse generator which can exacerbate accurate tape parking and scanning necessitating applicant's recited inventive solutions.

In claim 2 applicant recites a method for controlling a capstan in a video tape recorder. The capstan is driven by a motor and draws a tape from which a video signal is reproduced. The method comprises the steps of rotating the capstan in a first direction; applying a torque to the capstan in a second direction

opposite the first direction for a first predetermined period of time; applying a torque to the capstan in the first direction for a second predetermined period of time; and nullifying the motor current.

Masuda et al. are directed to a data recorder where data is intermittently recorded and played back. Excessive wear on the mechanism is reduced by control of the tape driving force as follows from column 2, lines 9 - 19;

"Owing to the control means, furthermore, the tape-driving-force generating unit such as the capstan motor or the like is controlled before its rotation is stopped and when the repositioning is finished, the tape is stopped at such a position that the scanning portion of the magnetic head for the tape is located on an unrecorded area between the data groups. This helps prevent deterioration of the reliability of data such as dropout of data or decrease of the S/N ratio that stems from the scanning operation of the magnetic head."

The Examiner cites from various parts of the teachings of Masuda et al. to illustrate that the tape is moved in a reverse direction prior to halting playing and initiating a record mode. Specifically the Examiner cites column 4, lines 50 to 55, of Masuda et al. which discloses that the capstan rotates, the supply reel (S) provides a constant back tension (torque) and the take up reel (T) takes up the tape. This description of Masuda et al. is clearly directed to a forward or normal record / replay condition.

Figure 4 of Masuda et al. shows tape motion during a sequence of operational modes. Initially the tape is moved forward, first entering play mode followed by a record condition. The record condition is then terminated and tape motion is reversed and moved to a location prior to the last recorded segment whereupon motion is stopped. Thus Masuda et al. teach bidirectional tape motion.

Although Masuda et al. describe in detail the operation of the tape transport mechanism they fail provide any disclosure or suggestion of capstan motor control as applicant recites. Thus, lacking any teaching or suggestion of capstan motor control Masuda et al. cannot be considered to anticipate or render applicant's claim 2 obvious. Withdrawal of the rejection under 35 U.S.C. §102(b) is respectfully requested.

Claims 3 - 7 and 9 depend from claim 2 and are, for the same reasons, neither anticipated nor rendered obvious by the teachings of Masuda et al. Withdrawal of the rejection of claims 3 - 7 and 9 is respectfully requested.

New claim 11 presents in independent form, the material of claim 8 and base claim 2, deemed allowable by the Examiner. Claims 12 - 16 depend from claim 11 and are also believed allowable.

Claims 17 and 18 depend from claim 2 and are directed to the motion of the tape. Claims 17 and 18 are believed to allowable since they recite unidirectional tape motion which is clearly different to the bidirectional, oscillatory tape motion taught by Masuda et al.

Having fully addressed the Examiner's rejections it is believed that, in view of the preceding amendments and remarks, this application is in condition for allowance which is respectfully requested. No fee is believed due, however, if a fee is due, please charge the additional fee to Deposit Account 07-0832.

Respectfully submitted,
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